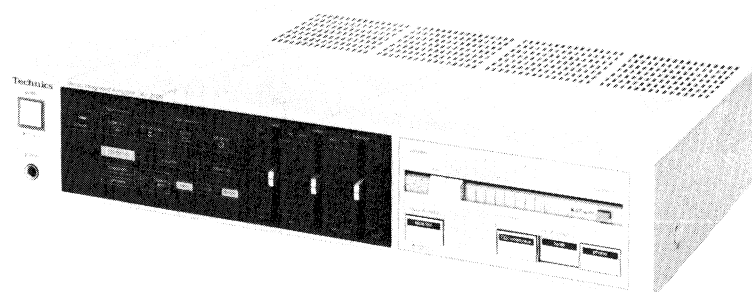


Service Manual

Stereo Integrated Amplifier

Amplifier

SU-Z100

**Color**

(S) Silver Type
(K) Black Type

Color	Area
(K) (S)	[E] Switzerland and Scandinavia
(K) (S)	[EGA] . . F.R. Germany
(K) (S)	[EK] United Kingdom
(K) (S)	[EF] France
(K) (S)	[EH] Holland
(K) (S)	[EB] Belgium
(K) (S)	[Ei] Italy
(K) (S)	[XL] Australia
(K) (S)	[XA] Asia, Latin America, Africa, Middle Near East and Oceania
(K)	[PC] European Audio Club

SPECIFICATIONS

(DIN 45 500)

■ AMPLIFIER SECTION

1 kHz continuous power output both channels driven	2 × 20W (8Ω)
40 Hz~16 kHz continuous power output both channels driven	2 × 18W (8Ω)
Total harmonic distortion	
rated power at 1 kHz	0.8% (8Ω)
rated power at 40 Hz~16 kHz	0.8% (8Ω)
half power at 1 kHz	0.05% (8Ω)
Intermodulation distortion	
rated power at 250 Hz: 8 kHz=4:1, 8Ω	0.8%
rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0.8%
Power bandwidth	
both channels driven, -3 dB	15 Hz~30 kHz (8Ω, 0.8%)
Residual hum and noise	0.7 mV
Damping factor	40 (8Ω)
Input sensitivity and impedance	
PHONO	2.5 mV/47kΩ
TUNER, CD/VIDEO/AUX, TAPE/EXT	150 mV/22kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV
S/N	
rated power (8Ω)	
PHONO	71 dB (IHF, A: 71 dB)
TUNER, CD/VIDEO/AUX, TAPE/EXT	85 dB (IHF, A: 96 dB)
-26 dB power (8Ω)	
PHONO	65 dB
TUNER, CD/VIDEO/AUX, TAPE/EXT	65 dB
50 mW power (8Ω)	
PHONO	65 dB
TUNER, CD/VIDEO/AUX, TAPE/EXT	65 dB

Frequency response PHONO

RIAA standard curve
±0.8 dB (30 Hz~15 kHz)
10 Hz~70 kHz (-3 dB)

TUNER, CD/VIDEO/AUX, TAPE/EXT

Tone controls

BASS

50 Hz, +10 dB~ -10 dB

TREBLE

20 kHz, +10 dB~ -10 dB

Loudness control (volume at -30 dB)

50 Hz, +9 dB

Output voltage and impedance

REC OUT

150 mV

Channel balance, CD/VIDEO/AUX 250 Hz~6,300 Hz

±1 dB

Channel separation, CD/VIDEO/AUX 1 kHz

55 dB

Headphones output level and impedance

300 mV/330Ω

Load impedance

8Ω~16Ω

■ GENERAL

Power consumption

115W

Power supply

For Australia and United Kingdom

AC 50 Hz/60 Hz, 240V

For continental Europe

AC 50 Hz/60 Hz, 220V

For others

AC 50 Hz/60 Hz, 110V/120V/220V/240V

Dimensions (W×H×D)

430 × 86 × 240 mm
(16-15/16" × 3-3/8" × 9-7/16")

Weight

3.6 kg
(7.9 lb.)

Note:

Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Specifications are subject to change without notice for further improvement.

Technics

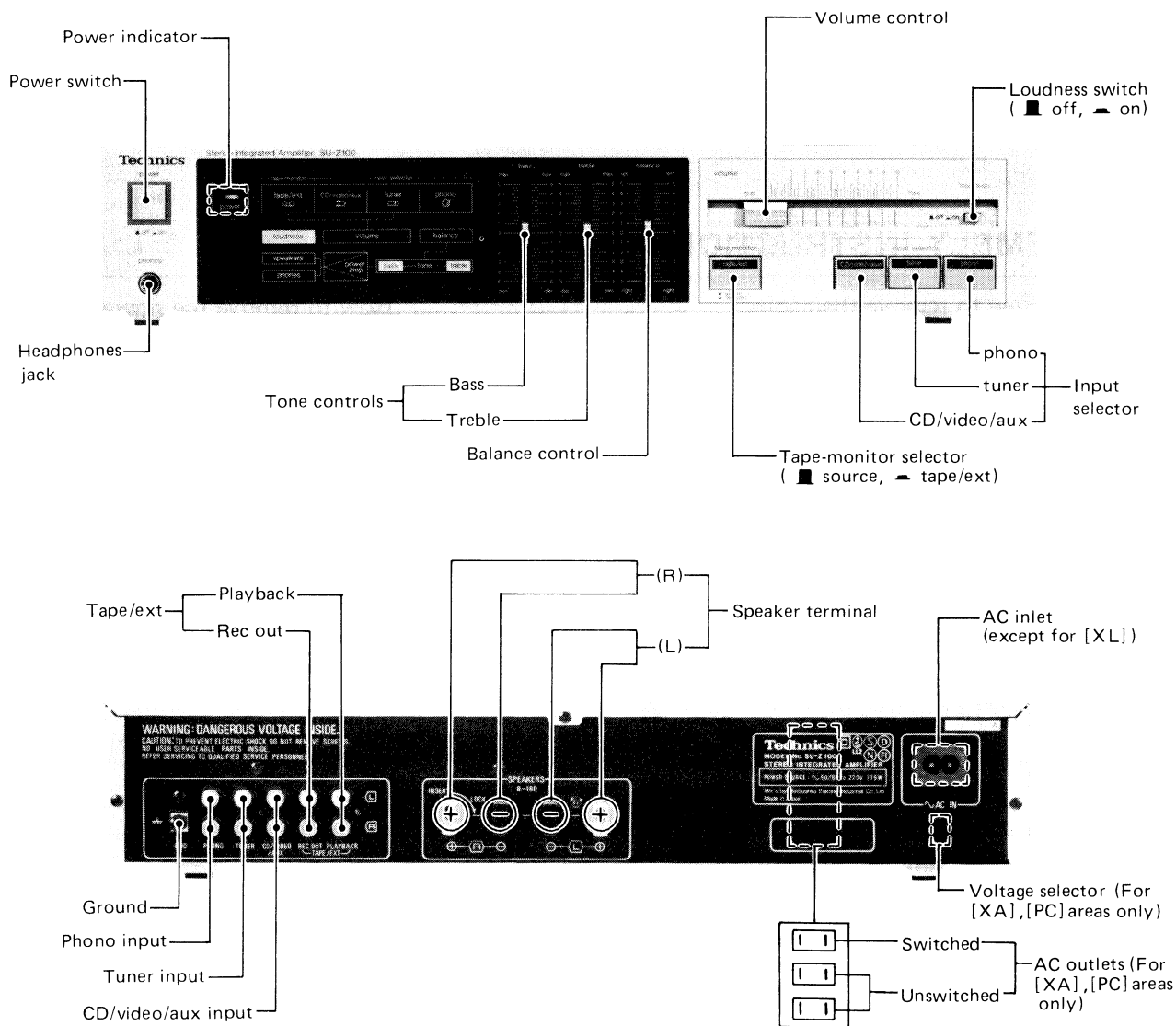
Matsushita Electric Trading Co., Ltd.

P.O. Box 288, Central Osaka Japan

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LOCATION OF CONTROLS



- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different. So, refer to the circuit diagram and replacement parts list.
- * [XA] and [PC] areas are provided with voltage selector and AC outlets.
- * 240V (50/60Hz) for Australia and United Kingdom.
- * 220V (50/60Hz) for Continental Europe.
- * 110V/120V/220V/240V (50/60Hz) for other [XA], [PC] areas.
- * Phono input capacitance is about 150pF.

PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again.

Note:

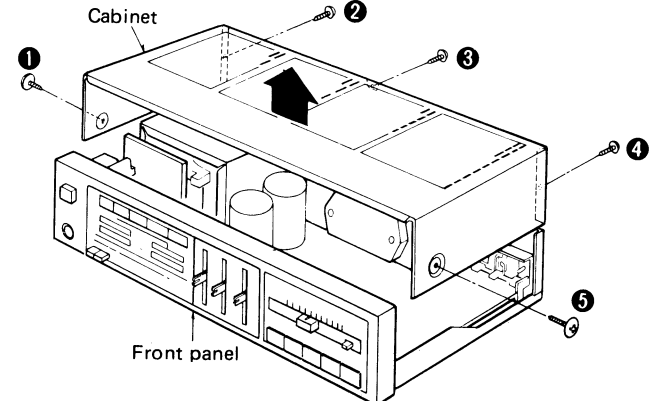
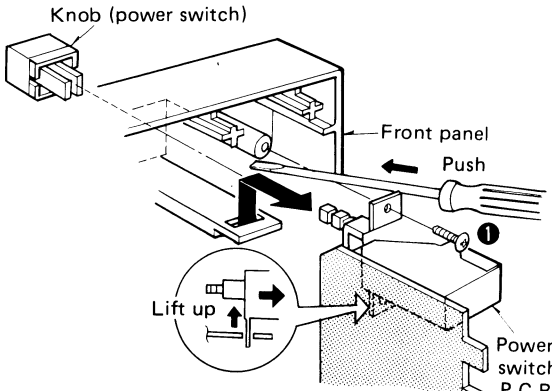
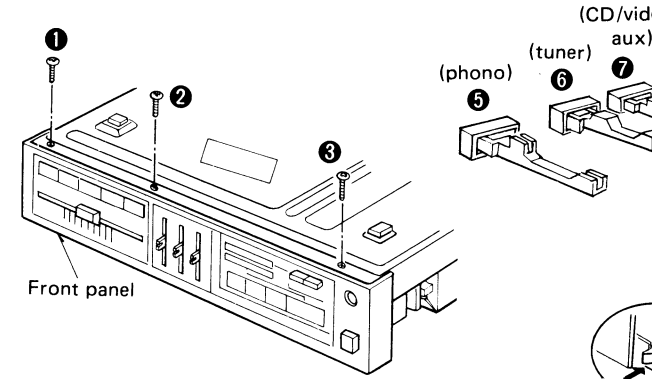
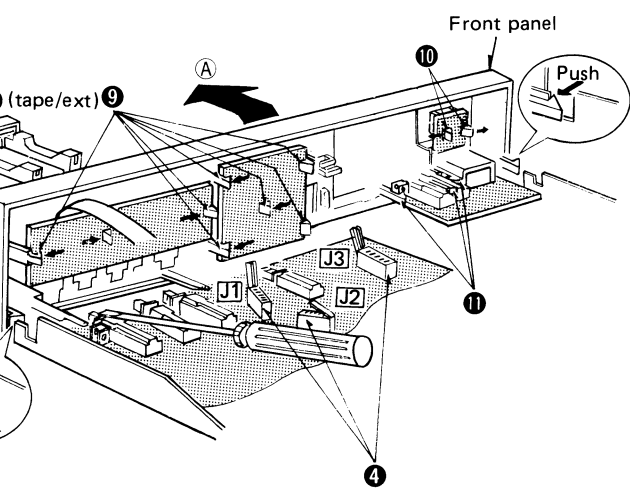
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

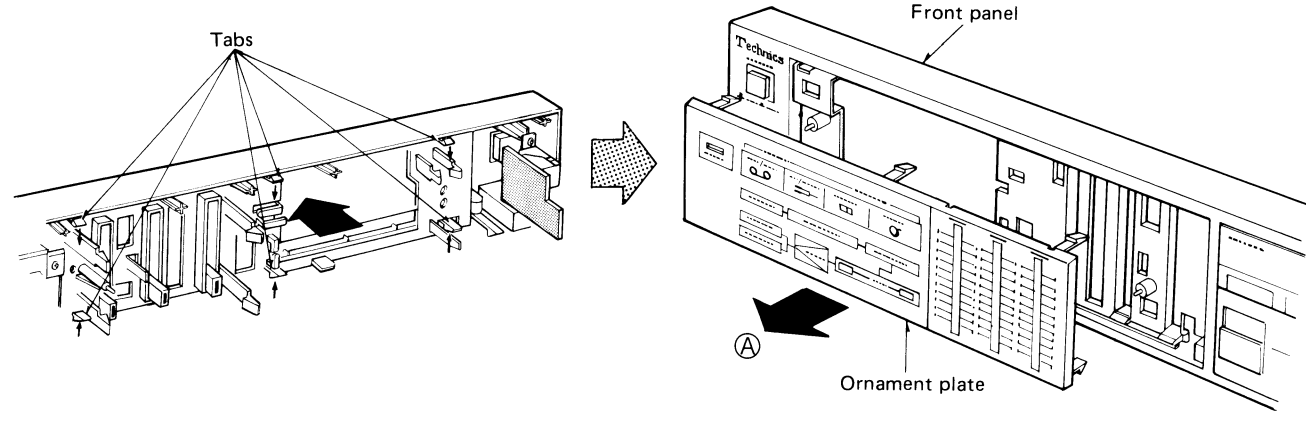
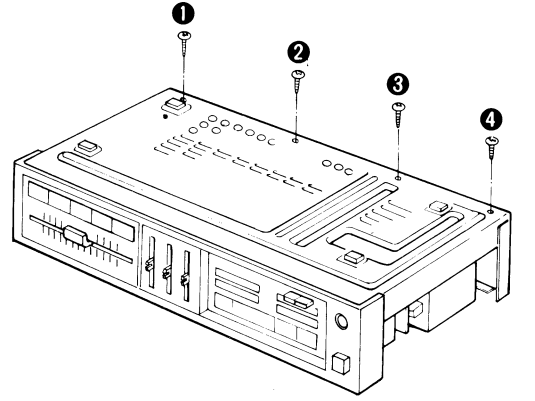
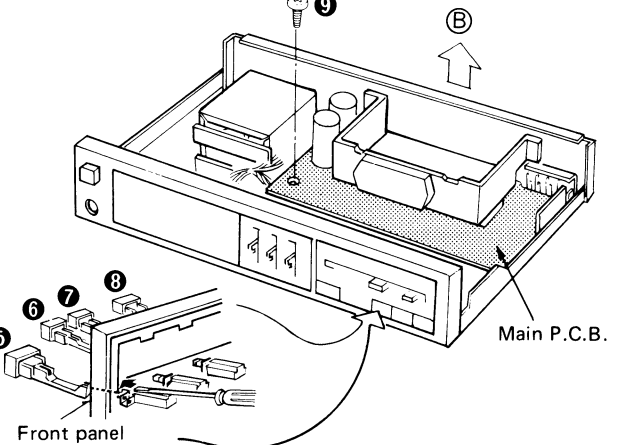
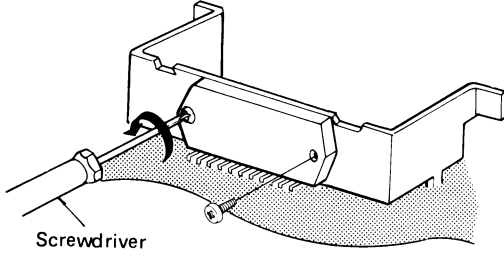
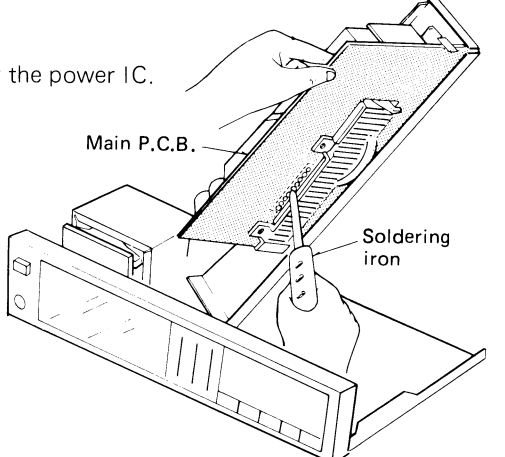
BEFORE REPAIR AND ADJUSTMENT

Disconnect AC power, Discharge both Power Supply Capacitors C904 and C905 (3300 μ F) through a 10 Ω , 5W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 110V/120V/220V/240V.

Power supply voltage		AC110V	AC120V	AC220V	AC240V
Consumed current	50Hz/60Hz	85 ~ 170mA	70 ~ 135mA	40 ~ 85mA	40 ~ 80mA

DISASSEMBLY INSTRUCTIONS

Ref. No. 1 How to remove the cabinet	Ref. No. 2 How to remove the power switch
Procedure 1 1. Remove the 5 screws. (① ~ ⑤) 	Procedure 1 → 2 1. Remove the 1 screw. (①) 2. Remove the power switch knob with a screwdriver. 
Ref. No. 3 How to remove the front panel	
Procedure 1 → 3 1. Remove the 3 screws (① ~ ③) 2. Pull out the 3 connectors (J1, J2, J3) 3. Push on the 4 knobs with a screwdriver. 	4. Push the 16 tabs. (⑨ ~ ⑱) 5. Remove the front panel in the direction of the arrow ①. 

Ref. No. 4 How to remove the ornament plate	
Procedure 1 → 3 → 4 1. Push the 6 tabs aside. 2. Remove the ornament plate in the direction of the arrow ①. 	
Ref. No. 5 How to remove the power IC	
Procedure 1 → 5 1. Remove the 4 screws. (① ~ ④) 	2. Push out the 4 knobs with a screwdriver. (⑤ ~ ⑧) 3. Remove the 1 screw. (⑨) 4. Shift the main P.C.B. toward the front panel in the direction of arrow ② to lift it upward and out. 
6. Remove the 2 screws.  When mounting the power IC, apply heat sink compound to the rear of the power IC.	5. Unsolder the power IC. 

Stereo Integrated Amplifier

SU-Z100

- This booklet includes the specifications of Model SU-Z100 (Order No. HAD84072868C8) written in German, French and Spanish.
- File this booklet together with the service manual of Model SU-Z100.
- Dieses Büchlein umfaßt die technischen Daten von Modell SU-Z100 (Bestell-Nr. HAD84072868C8) in den Sprachen Deutsch, Französisch und Spanisch.
- Bewahren Sie dieses Büchlein zusammen mit dem Service-Handbuch von Modell SU-Z100 auf.
- Cette brochure comprend les spécifications du Modèle SU-Z100 (N° d'Ordre HAD84072868C8) écrites en français, en allemand et en espagnol.
- Classer cette brochure en même temps qu'avec le manuel de service du Modèle SU-Z100.
- Este librito incluye las especificaciones de Modelo SU-Z100 (Pedido N° HAD84072868C8) escritas en alemán, francés y español.
- Guardar este librito juntamente con el manual de servicio de Modelo SU-Z100.

DEUTSCH

■ TECHNISCHE DATEN

(DIN 45 500)

■ VERSTÄRKERTEIL

Dauerton-Ausgangsleistung bei 1 kHz	
beide Kanäle angesteuert	2 × 20W (8 Ω)
Dauerton-Ausgangsleistung bei 40 Hz ~ 16 kHz	
beide Kanäle angesteuert	2 × 18W (8 Ω)
Gesamtklirrfaktor	
rated power at 1 kHz	0,8% (8Ω)
rated power at 40 Hz~16 kHz	0,8% (8Ω)
halbe Nennleistung bei 1 kHz	0,05% (8 Ω)
Intermodulationsfaktor	
Nennleistung bei 250 Hz: 8 kHz = 4:1, 8 Ω	0,8%
Nennleistung bei 60 Hz: 7 kHz = 4:1, nach SMPTE, 8 Ω	0,8%
Leistungsbandbreite	
beide Kanäle angesteuert bei -3 dB	15 Hz~30 kHz (8Ω, 0,8%)
Restbrumm und Geräusch	0,7 mV
Dämpfungsfaktor	40 (8 Ω)
Eingangsempfindlichkeit und -impedanz	
Phono	2,5 mV/47 kΩ
Tuner, CD/Video/Aux, Tape/EXT	150 mV/22 kΩ
Maximale TA-Eingangsspannung (1 kHz, eff.)	150 mV
Geräuschabstand	
Nennleistung (8 Ω)	
Phono	70 dB (nach IHF, A: 71 dB)
Tuner, CD/Video/Aux, Tape/EXT	84 dB (nach IHF, A: 96 dB)
-26 dB Leistung (8 Ω)	
Phono	62 dB
Tuner, CD/Video/Aux, Tape/EXT	65 dB
50 mW Leistung (8 Ω)	
Phono	65 dB
Tuner, CD/Video/Aux, Tape/EXT	65 dB

Frequenzgang	
Phono	RIAA-Standardkurve ±0,8 dB (30 Hz ~ 15 kHz)
Tuner, CD/Video/Aux, Tape/EXT	10 Hz ~ 70 kHz (-3 dB)
Klangregler	
Baßregler (BASS)	50 Hz, +10 dB ~ -10 dB
Höhenregler (TREBLE)	20 kHz, +10 dB ~ -10 dB
Gehörriichtige Lautstärkekorrektur (Loudness)	
(bei -30 dB Ausgangsleistung)	50 Hz, +9 dB
Ausgangsspannung und -impedanz	
Aufnahmeausgang (REC OUT)	150 mV
Kanalabweichung (CD/Video/Aux, 250 Hz ~ 6300 Hz)	±1 dB
Übersprechdämpfung (CD/Video/Aux, 1 kHz)	55 dB
Kopfhörerpegel und -impedanz	300 mV/330 Ω
Lautsprecherimpedanz	8 Ω ~ 16 Ω

■ ALLGEMEINE DATEN

Leistungsaufnahme	115 W
Netzspannung	Wechselstrom 50 Hz/60 Hz, 220V
Abmessungen (B×H×T)	430 × 86 × 240 mm
Gewicht	3,6 kg

Bemerkung:

Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

(Die technischen Daten können infolge von Verbesserungen ohne Ankündigung geändert werden.)

FRANÇAIS

(DIN 45 500)

SECTION AMPLIFICATEUR

Puissance de sortie continue à 1 kHz les deux canaux en circuit	2 × 20W (8Ω)
Puissance de sortie continue de 40 Hz~16 kHz, les deux canaux en circuit	2 × 18W (8Ω)
Distorsion harmonique totale rated power at 1 kHz	0,8% (8Ω)
rated power at 40 Hz~16 kHz	0,8% (8Ω)
à demi-puissance (1 kHz)	0,05% (8Ω)
Distorsion d'intermodulation à puissance nominale à 250 Hz: 8 kHz=4:1, 8Ω	0,8%
à puissance nominale à 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0,8%
Réponse de fréquences les deux canaux en circuit, -3 dB	15 Hz~30 kHz (8Ω, 0,8%)
Bruit et ronflement résiduels	0,7 mV
Coefficient d'amortissement	40 (8Ω)
Sensibilité et impédance d'entrée PHONO	2,5 mV/47kΩ
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	150 mV/22kΩ
PHONO (tension d'entrée maximum, 1 kHz RMS)	150 mV
Signal/Bruit à puissance nominale (8Ω)	
PHONO	71 dB (IHF, A: 71 dB)
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	85 dB (IHF, A: 96 dB)
puissance de -26 dB (8Ω)	
PHONO	65 dB
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	65 dB
puissance de 50 mW (8Ω)	
PHONO	65 dB
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	65 dB
Réponse de fréquence PHONO	Courbe nominale RIAA ±0,8 dB (30 Hz~15 kHz)
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	10 Hz~70 kHz (-3 dB)
Réglage de la tonalité BASSES (BASS)	50 Hz, +10 dB~ -10 dB
AIGUS (TREBLE)	20 kHz, +10 dB~ -10 dB
Compensateur physiologique (volume à -30 dB)	50 Hz, +9 dB
Tension de sortie et impédance SORTIE ENREGISTREMENT (REC OUT)	150 mV
Equilibrage des canaux, CD/VIDEO/AUX	250 Hz~6 300 Hz ±1 dB
Séparation des canaux, CD/VIDEO/AUX	1 kHz 55 dB
Niveau de sortie des casques et impédance	300 mV/330Ω
Impédance de charge	8Ω~16Ω

DIVERS

Consommation	115W
Alimentation	
Pour l'Europe	CA 50 Hz/60 Hz, 220V
Autres	CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (L×H×Pr)	430 × 86 × 240 mm
Poids	3,6 kg

Remarque:

- On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).
- La Société NATIONAL-PANASONIC-FRANCE, importateur du matériel MATSUSHITA-ELECTRIC déclare que cet appareil est conforme aux prescriptions de la directive 76/889/C.E.E. (arrêté 14 Janvier 1980)

(Sujet à changement sans preavis.)

ESPAÑOL

(DIN 45 500)

SECCION AMPLIFICADOR

Potencia continua de 1 kHz en ambos canales	2 × 20W (8Ω)
Potencia continua de 40 Hz~16 kHz en ambos canales	2 × 18W (8Ω)
Distorsión armónica total rated power at 1 kHz	0,8% (8Ω)
rated power at 40 Hz~16 kHz	0,8% (8Ω)
mitad de potencia a 1 kHz	0,05% (8Ω)
Distorsión por intermodulación potencia de régimen a 250 Hz: 8 kHz=4:1, 8Ω	0,8%
potencia de régimen a 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0,8%
Ancho de banda de potencia con ambos canales, -3 dB	15 Hz~30 kHz (8Ω, 0,8%)
Zumbido residual y ruido	0,7 mV
Factor de amortiguamiento	40 (8Ω)
Sensibilidad e impedancia de entrada TOCADISC. (PHONO)	2,5 mV/47kΩ
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	150 mV/22kΩ
Voltaje máximo de entrada de PHONO (1 kHz, RMS)	150 mV
Relación de señal a ruido potencia de régimen (8Ω)	
TOCADISC. (PHONO)	71 dB (IHF, A: 71 dB)
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	85 dB (IHF, A: 96 dB)
-26 dB de potencia (8Ω)	
TOCADISC. (PHONO)	65 dB
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	65 dB
50 mW de potencia (8Ω)	
TOCADISC. (PHONO)	65 dB
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	65 dB
Respuesta de frecuencia TOCADISC. (PHONO)	curva RIAA estándar ±0,8 dB (30 Hz~15 kHz)
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	10 Hz~70 kHz (-3 dB)
Controles de tono BAJOS (BASS)	50 Hz, +10 dB~ -10 dB
AGUDOS (TREBLE)	20 kHz, +10 dB~ -10 dB
Control de sonoridad (volumen a -30 dB)	50 Hz, +9 dB
Voltaje e impedancia de salida SAL. GRAB. (REC OUT)	150 mV
Equilibrio de canales, CD/VIDEO/AUX	250 Hz~6 300 Hz ±1 dB
Separación de canales, CD/VIDEO/AUX	1 kHz 55 dB
Impedancia y nivel de salida de los auriculares	300 mV/330Ω
Impedancia de carga	8Ω~16Ω

GENERAL

Consumo de energía	115W
Alimentación de energía	
Para Europa continental	CA 50 Hz/60 Hz, 220V
Para otros países	CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensiones (An.×Al.×Prof.)	430 × 86 × 240 mm
Peso	3,6 kg

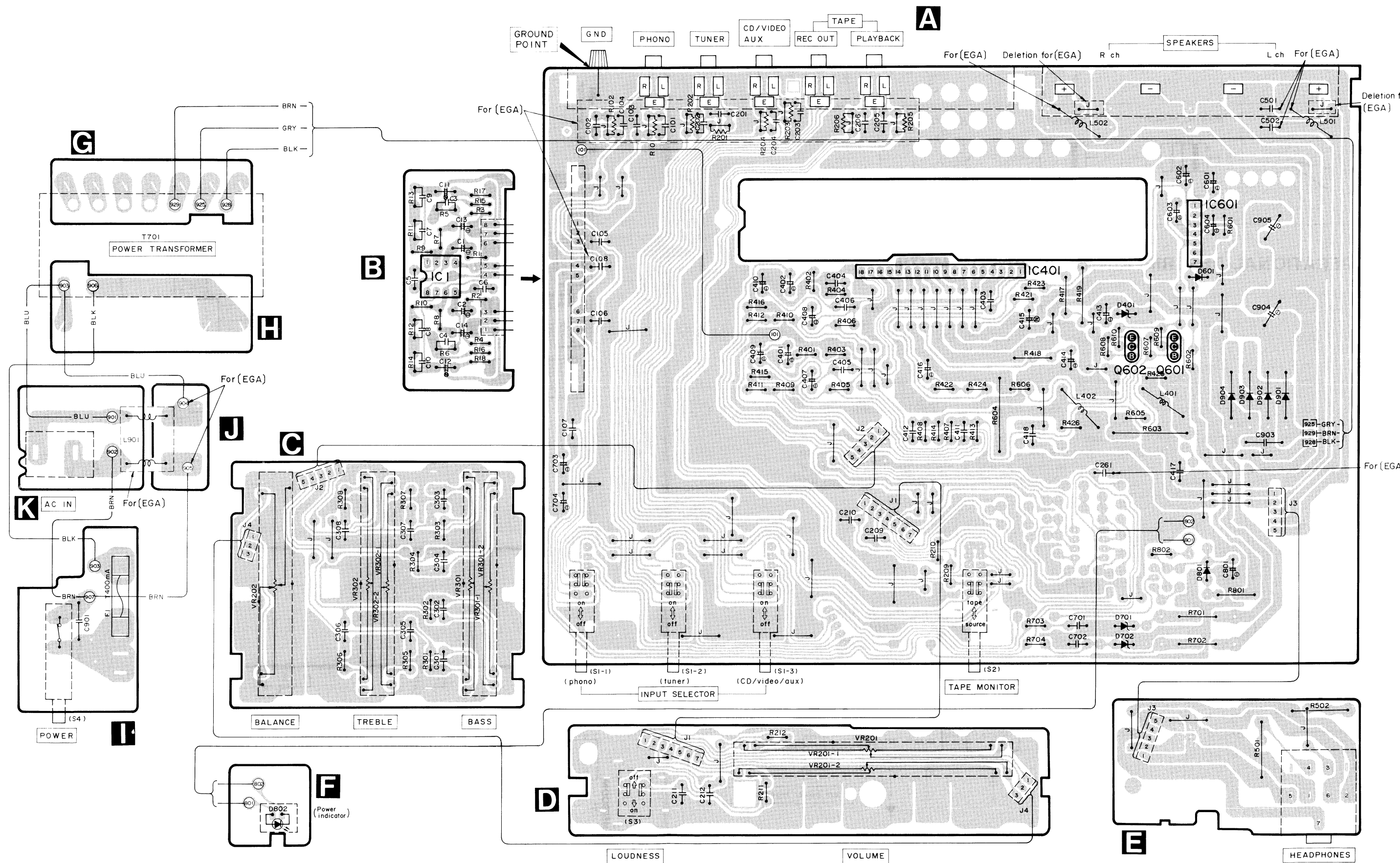
Nota:

La distorsión armónica total se mide con el analizador de espectro digital

(Estas especificaciones están sujetas a cualquier cambio sin previo aviso.)

Printed in Japan
840806900 ☒ YK

PRINTED CIRCUIT BOARDS



■ TERMINAL GUIDE OF TRANSISTORS, DIODES AND IC'S

MA165	SVDSR1K2	SVINJM2043DD SVINJ4559DDM	STK4121-2M	AN7072N
2SA992	MA4150, MA4091	MA167	SVDLB72UR5	

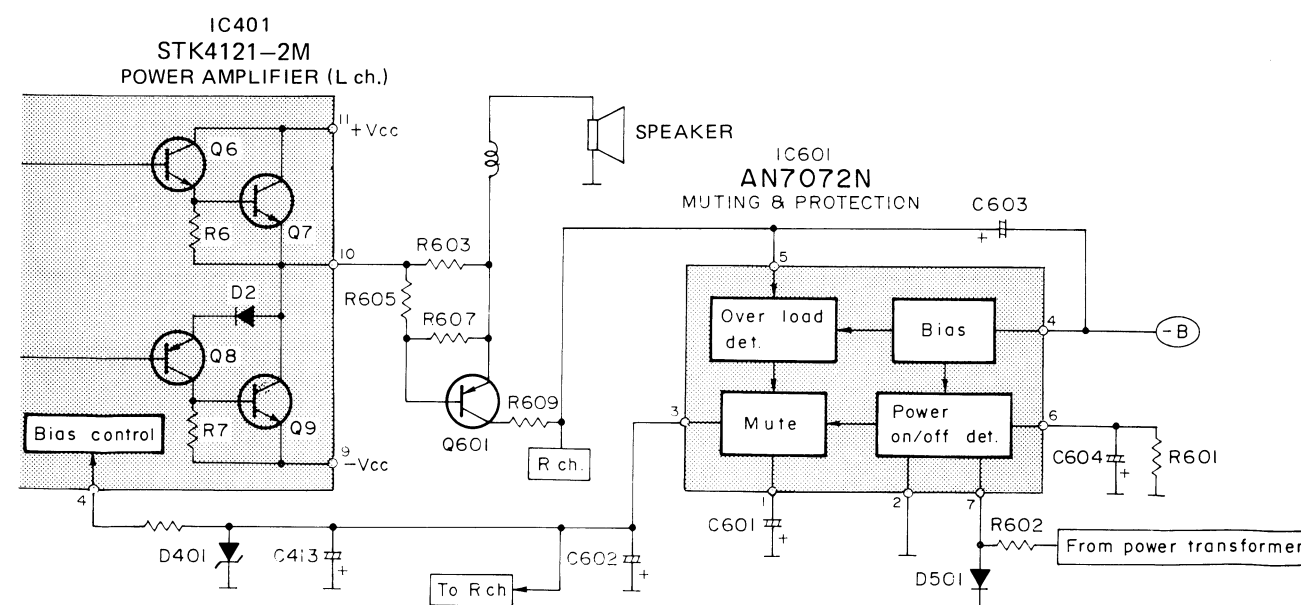
■ OPERATIONAL DESCRIPTION OF IC601 FOR MUTING

- Muting operation with power ON.

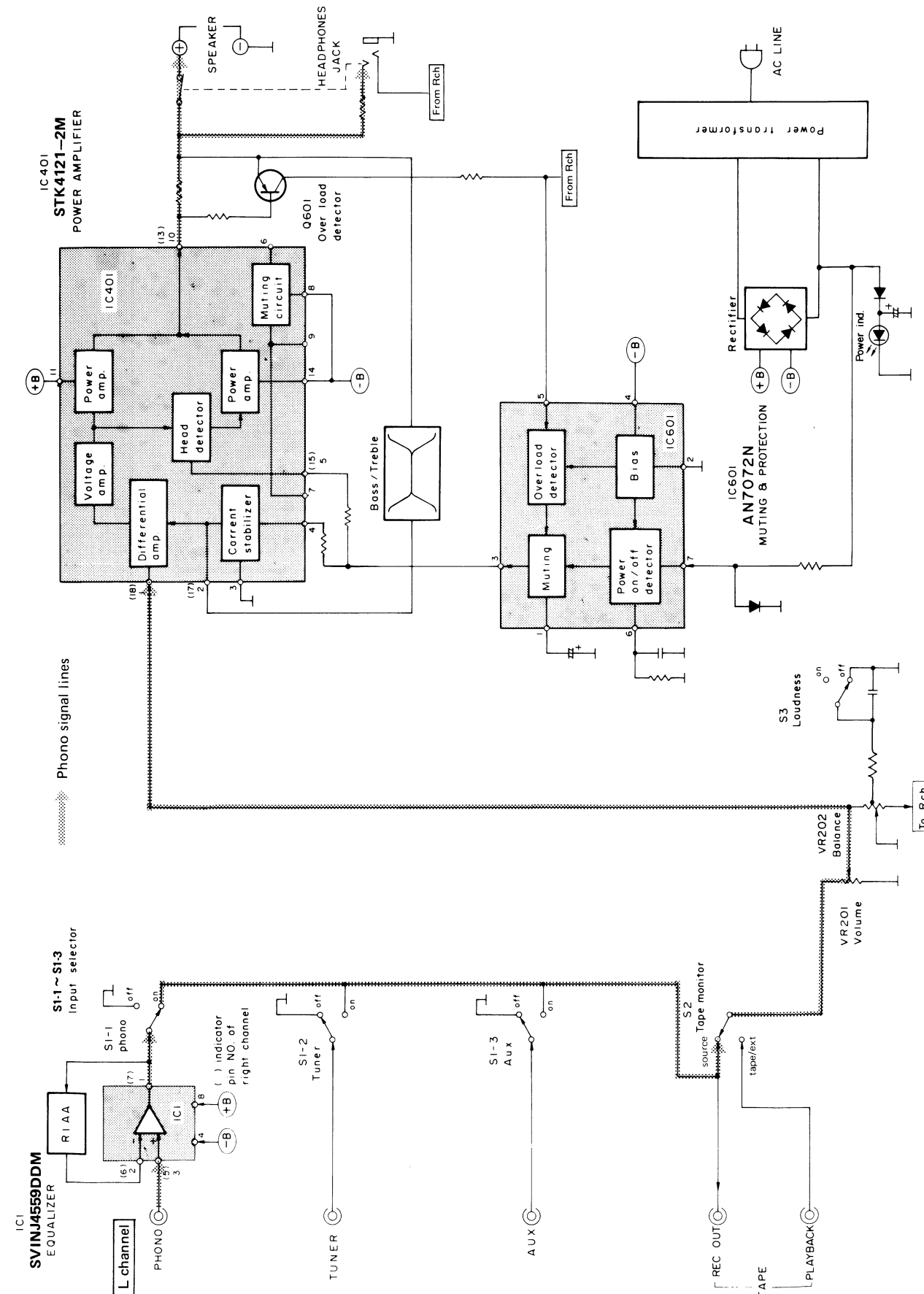
With power turned ON, DC voltage is applied to terminal ⑦ of IC601. Then capacitor C601 connected to terminal ① is charged, and the voltage of terminal ① gradually rises. When the voltage reaches about -4V (about 5 sec. after power ON), the muting circuit turns off, and then -28.1V is generated at terminal ③. The voltage of terminal ③ is supplied to the power amplifier of IC401, thus operating power IC.
- Muting operation with power OFF.

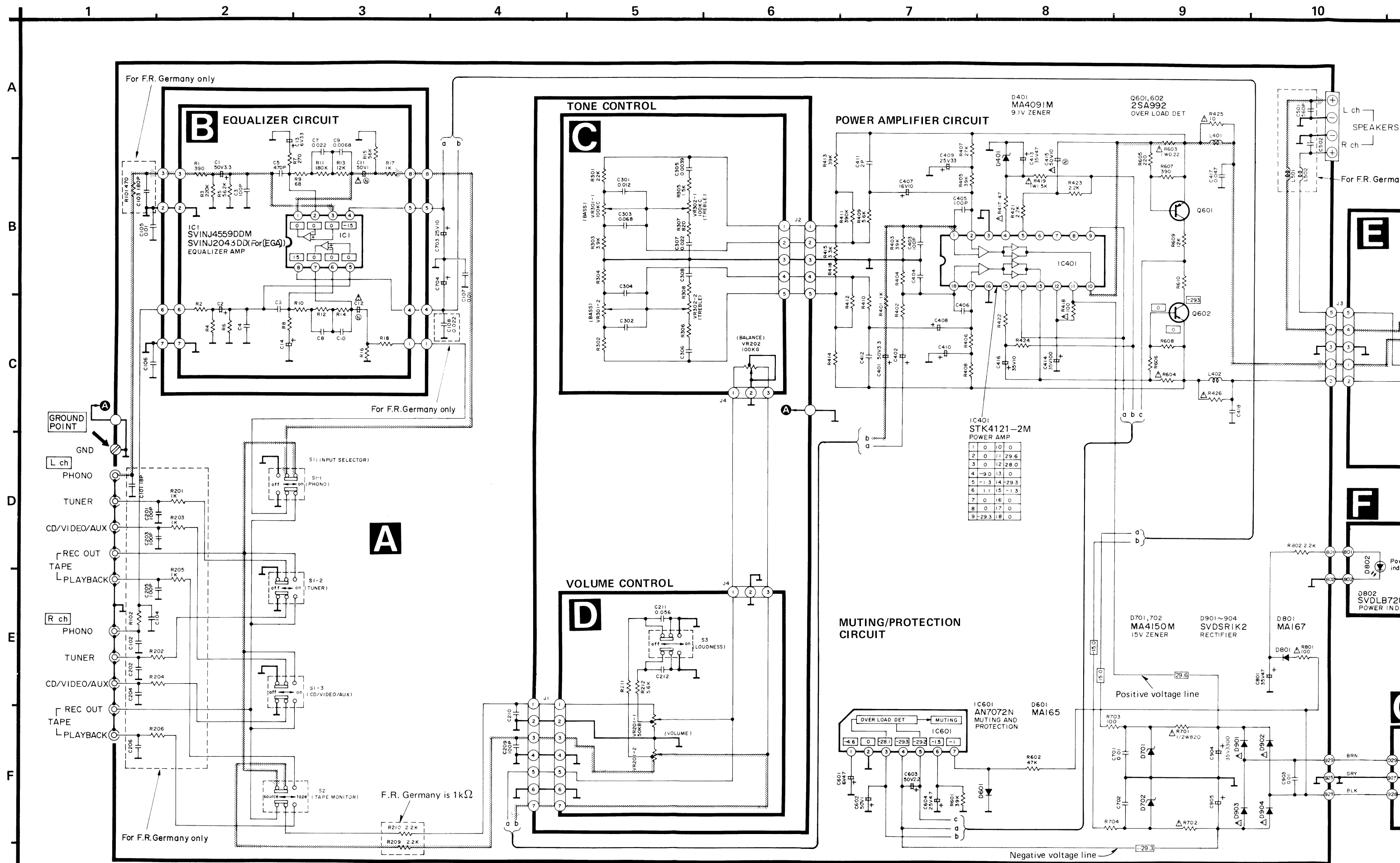
With power turned OFF, capacitor C601 connected to terminal ① is discharged, causing the voltage of C601 to drop, and then the muting circuit in IC turns ON. With the muting circuit turned ON, the voltage of terminal ③ becomes 0V, and then power supply to the power amplifier of IC401 is discontinued.
- Muting operation with power amplifier over-loaded.

With speaker terminals short-circuited, a large quantity of current flows into R603 (R604), causing the voltage rise. The voltage causes Q601 (Q602) to turn ON, and then overload detecting signal is applied to terminal ⑤. When the potential difference between terminals ④ and ⑤ reaches about 0.7V, capacitor C601 is discharged the same as for muting operation with power OFF. As a result, the muting circuit turns ON and the voltage of terminal ③ becomes 0V.



■ BLOCK DIAGRAM





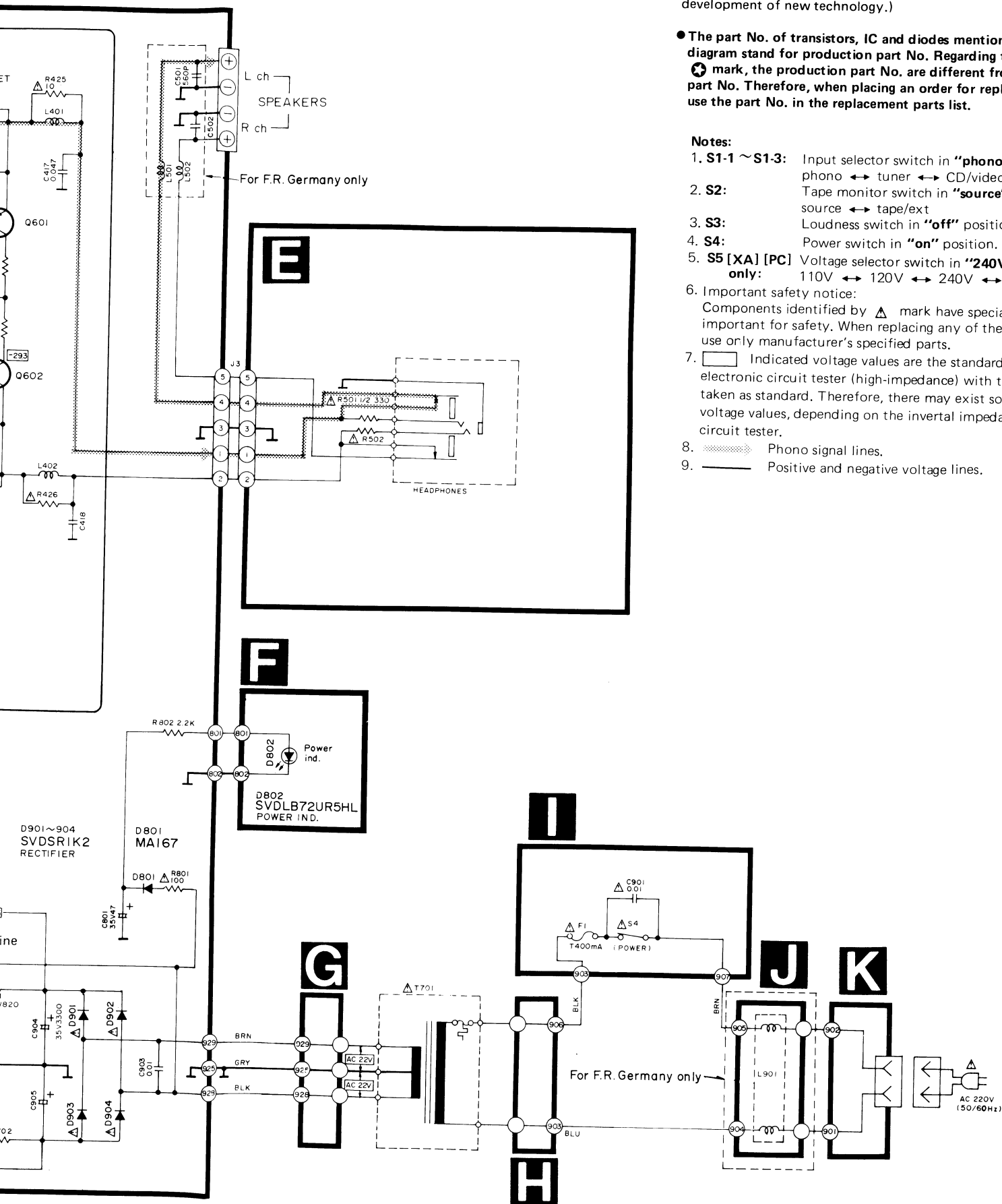
SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

• The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with Δ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement parts, please use the part No. in the replacement parts list.

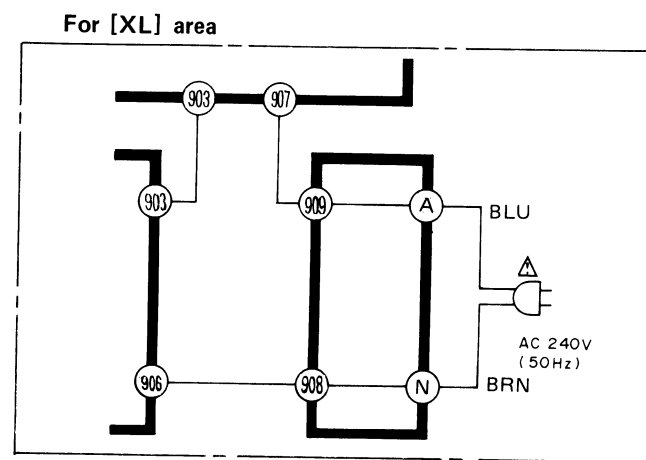
Notes:

1. S1-1 ~ S1-3: Input selector switch in "phono" position.
phono $\leftrightarrow$ tuner $\leftrightarrow$ CD/video/aux
2. S2: Tape monitor switch in "source" position.
source $\leftrightarrow$ tape/ext
3. S3: Loudness switch in "off" position.
4. S4: Power switch in "on" position.
5. S5 [XA] [PC] Voltage selector switch in "240V" position.
only: 110V $\leftrightarrow$ 120V $\leftrightarrow$ 240V $\leftrightarrow$ 220V
6. Important safety notice:
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
7. $\square$ Indicated voltage values are the standard values for the DC electronic circuit tester (high-impedance) with the ground point taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
8. $\cdots$ Phono signal lines.
9. --- Positive and negative voltage lines.



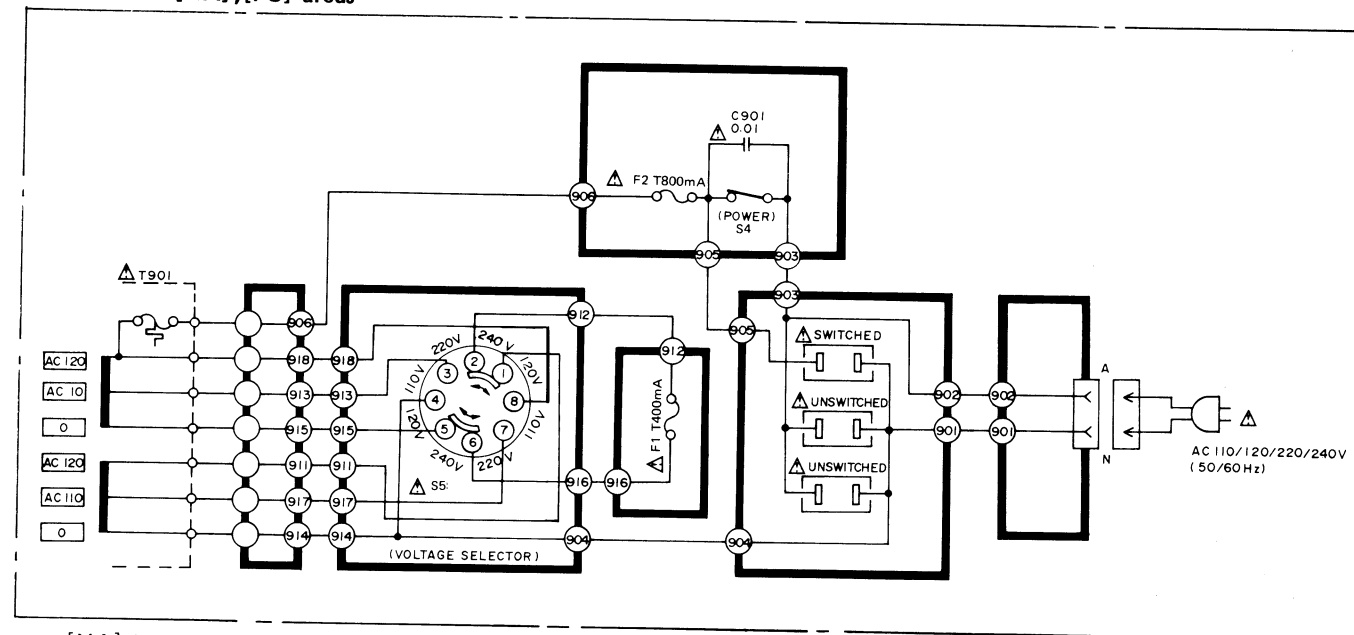
CIRCUITS TO BE CHANGED AND THE AREAS

• Power source circuit



- [XL] is available in Australia.

For [XA],[PC] areas



- [XA] is available in Asia, Latin America, Africa, Middle Near East and Oceania.
- [PC] is available in European Audio club.

RESISTORS & CAPACITORS

- Notes:**
- Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
 - Important safety notice: Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
 - Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.

Numbering System of Resistor

Example

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Numbering System of Capacitor

Example

ECKD	1H	103	Z	F
Type	Voltage	Value	Tolerance	Peculiarity

ECEA	50	M	R47	R
Type	Voltage	Peculiarity use	Value	Special use

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W	J : $\pm 5\%$
ERG : Metal oxide	25 : 1/4W	K : $\pm 10\%$
ERX : Metal film	S2 : 1/4W	G : $\pm 2\%$
ERD10TL : Chip type carbon	2A : 2W	
ERO10MK : Chip type Metal film	1A : 1W	

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
ECEA : Electrolytic	0J : 6.3V	1H : 50V DC	J : $\pm 5\%$
ECCD : Ceramic	1C : 16V	KC : 400V AC	K : $\pm 10\%$
ECKD : Ceramic	1E : 25V	2A : 250V	Z : $+80\%, -20\%$
ECQM : Polyester	1H : 50V	2H : 500V	P : $+100\%, -0\%$
ECEQ : Polyester	1V : 35V		
ECEA $\square$ N : Nom-polar Electrolytic	50 : 50V		

RESISTORS

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
R1,2	ERD10TLJ391U	390	R203,204	ERDS2TJ102	1K	R403,404	ERDS2TJ393	39K	R601	ERDS2TJ393	39K
R3,4	ERD10TLJ224U	220K	(EGA)only			R405,406	ERDS2TJ393	39K	R602	ERDS2TJ473	47K
R5,6	ERO10MKG5622	56.2K	R205,206	ERDS2TJ102	1K	R407,408	ERDS2TJ273	27K	R603,604	$\text{\textcircled{S}}$ ERX1ANJR22	0.22
R7,8	ERD10TLJ271U	270	(EGA)only			R409,410	ERDS2TJ562	5.6K	R605,606	ERDS2TJ221	220
R9,10	ERD10TLJ680U	68	R209,210	ERDS2TJ102	1K	R411,412	ERDS2TJ394	390K	R607,608	ERDS2TJ391	390
R11,12	ERD10TLJ184U	180K	(EGA)only			R413,414	ERDS2TJ393	39K	R609,610	ERDS2TJ123	12K
R13,14	ERD10TLJ123U	12K	R209,210	ERDS2TJ222	2.2K	R415,416	ERDS2TJ332	3.3K	R701,702	ERDS1FJ821	820
R15,16	ERD10TLJ563U	56K	Except(EGA)			R417	Δ ERD25FJ470	47	R703,704	ERDS2TJ101	100
R17,18	ERD10TLJ102U	1K	R211,212	ERDS2TJ562	5.6K	R418	$\text{\textcircled{S}}$ ERD25FJ101	100	R801	$\text{\textcircled{S}}$ ERD25FJ101	100
			R301,302	ERDS2TJ223	22K	R419	$\text{\textcircled{S}}$ ERG1ANJ152	1.5K	R802	ERDS1FJ222	2.2K
R101,102	ERDS2TJ471	470	R303,304	ERDS2TJ392	3.9K	R421,422	ERDS2TJ222	2.2K			
(EGA)only			R305,306	ERDS2TJ152	1.5K	R423,424	ERDS2TJ222	2.2K			
R201,202	ERDS2TJ102	1K	R307,308	ERDS2TJ821	820	R425,426	$\text{\textcircled{S}}$ ERD25FJ100	10			
(EGA)only			R401,402	ERDS2TJ102	1K	R501,502	Δ ERDS1FJ331	330			

CAPACITORS

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
C1,2	$\text{\textcircled{S}}$ ECEA50Z3R3	3.3	C108	ECKD1H223ZF	0.022	C401,402	ECEA1HU3R3	3.3	C501,502	ECKD1H561KB	560P
C3,4	$\text{\textcircled{S}}$ ECCD1H101K	100P	(EGA)only $\text{\textcircled{S}}$			C403,404	$\text{\textcircled{S}}$ ECCD1H101K	100P	(EGA)only $\text{\textcircled{S}}$		
C5,6	$\text{\textcircled{S}}$ ECKD1H471KB	470P	C201,202	ECCD1H101K	100P	C405,406	$\text{\textcircled{S}}$ ECCD1H101K	100P	C601	ECEA0JU470	47
C7,8	ECQM1H223JZ	0.022	(EGA)only $\text{\textcircled{S}}$			C407,408	ECEA1CU100	10	C602	ECEA1HU010	1
C9,10	ECQM1H682JZ	0.0068	C203,204	ECCD1H101K	100P	C409,410	ECEA1EU330	33	C603	ECEA1HU2R2	2.2
C11,12	$\text{\textcircled{N}}$ ECEA1HN010S	1	(EGA)only $\text{\textcircled{S}}$			C411,412	$\text{\textcircled{S}}$ ECCD1H020CC	2P	C604	ECEA1EU4R7	4.7
C13,14	ECEA0JU330	33	C205,206	ECCD1H101K	100P	C413	ECEA1VU470	47	C701,702	$\text{\textcircled{S}}$ ECKD1H103ZF	0.01
C101,102	ECCD1H180KC	18P	(EGA)only $\text{\textcircled{S}}$			C414	ECEA1VU101	100	C703,704	ECEA1EU100	10
(EGA)only $\text{\textcircled{S}}$			C209,210	$\text{\textcircled{S}}$ ECCD1H101K	100P	C415	ECEA1HN100S	10	C801	ECEA1VU470	47
			C211,212	ECQM1H563JZ	0.056	C416	ECEA1VU100	10	C901	Δ ECKDKC103PF2	0.01
C103,104	ECCD1H181K	180P	C301,302	ECQM1H123JZ	0.012	C417,418	$\text{\textcircled{S}}$ ECKD1H473ZF	0.047	C902	ECQE2A473MW	0.047
(EGA)only $\text{\textcircled{S}}$			C303,304	ECQM1H683JZ	0.068	C419	ECCD1H101K	100P	C903	ECKD2H103PE	0.01
C105,106	$\text{\textcircled{S}}$ ECKD1H103ZF	0.01	C305,306	ECQM1H392JZ	0.0039	(EGA)only $\text{\textcircled{S}}$			C904,905	ECEA1VU332	3300
C107	$\text{\textcircled{S}}$ ECKD1H103ZF	0.01	C307,308	ECQM1H223JZ	0.022						

REPLACEMENT PARTS LIST

- Notes:**
- Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
 - Important safety notice: Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
 - The $\text{\textcircled{S}}$ mark is service standard parts and may differ from production parts.

Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS		
IC1 (EGA)	SVINJM2043DD	Integrated Circuit
IC1 (other)	SVINJ4559DDM	Integrated Circuit
IC401	SVIK4121-2M	Integrated Circuit
IC601	AN7072N	Integrated Circuit
TRANSISTORS		
Q601,602	2SA992E	Transistor
DIODES		
D401	MA4091-M	Diode
D601	MA165	Diode
D701,702	MA4150M	Diode
D801	MA167	Diode
D802	SVDLB72UR5HL	Diode
D901-904	Δ SVDSR1K2	Diode
COILS		
L401,402	SLQY07G-30	Coil
L501,502	SLQY07G-30	Coil
(EGA)only		
L901(EGA)only	SLQZ650MH49	Coil
TRANSFORMERS		
T701 (EK, XL)	SLT5M289-W	Power Transformer
Δ T701 (XA, PC)	SLT5M291-W	Power Transformer
Δ T701 (other)	SLT5M287-W	Power Transformer
VARIABLE RESISTORS		
VR201	EWAQ48X05B54	Variable Resistor, 50K(B)
VR202	EWAPF7X15G15	Variable Resistor, 100K(G)
VR301,302	EWAPA9X15C15	Variable Resistor, 100K(C)
FUSES		
F1	Δ XBA2C04TR0	Fuse, 250V, T400mA
F2(XA, PC)only	Δ XBA2C08TR0	Fuse, 250V, T800mA
SWITCHES		
S1	SSH3073	Switch, Selector
S2	SSH1171	Switch, Tape
S3	SSH1145	Switch, Loudness
S4	SSH1071	Switch, Power
S5(XA, PC)only	ESE37219	Switch, Voltage Selector
CABINET and CHASSIS PARTS		
1	$\text{\textcircled{S}}$ SGW8260SA	Front panel (1)
1	$\text{\textcircled{K}}$ SGW8260BA	Front panel (1)

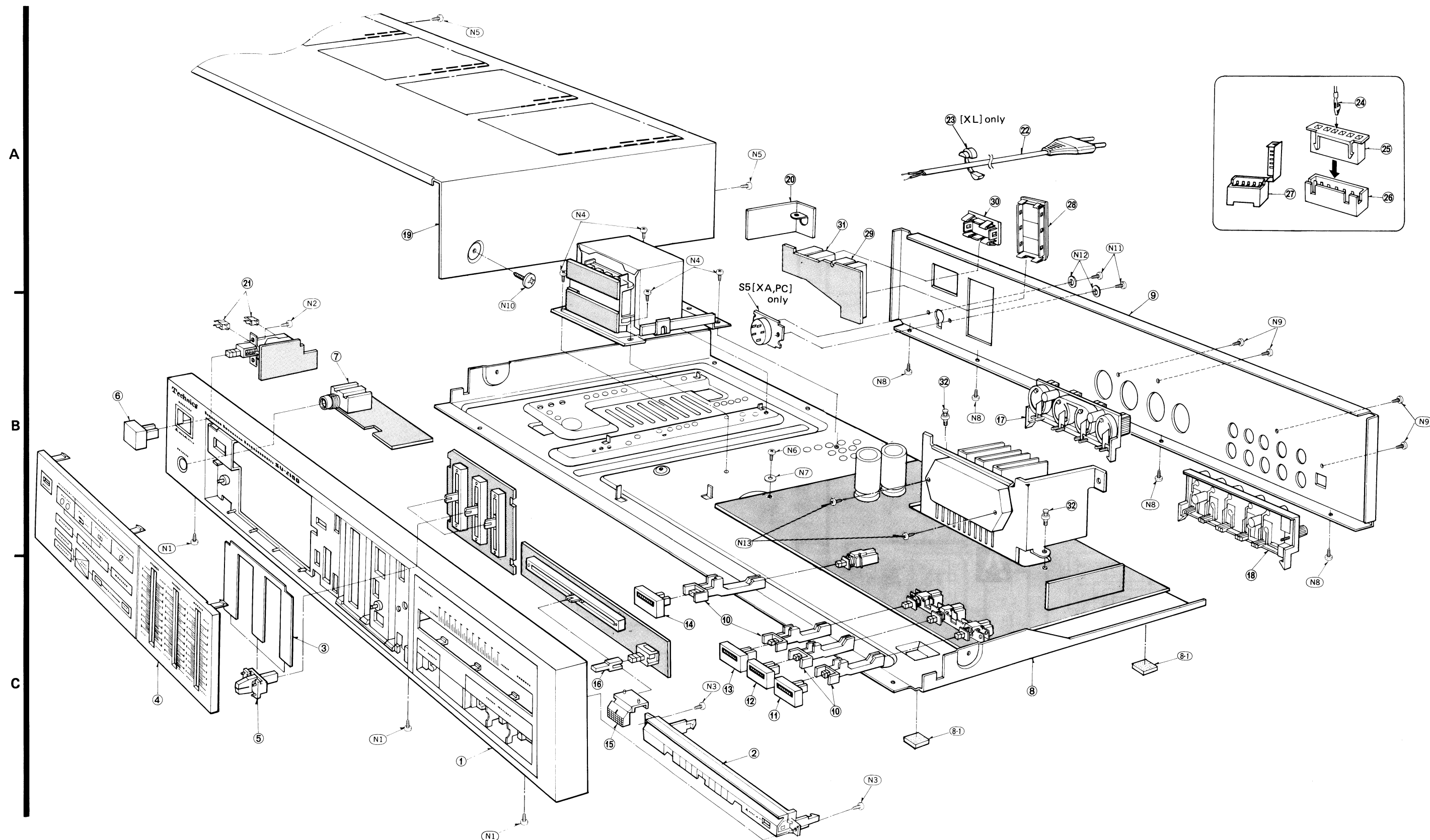
Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
2	$\text{\textcircled{O}}$ SGXUZ600-SE1	Slider Ass'y, Volume (1)
2	$\text{\textcircled{K}}$ SGXUZ600-KM1	Slider Ass'y, Volume (1)
3	SHR5276	Spacer, Tone (1)
4	$\text{\textcircled{O}}$ SGX7696	Sub panel, Tone (1)
4	$\text{\textcircled{K}}$ SGX7696-1	Sub panel, Tone (1)
5	SXB2	Knob, Tone (3)
6	SBC666	Knob, power (1)
7	SJJ63E	Jack, Headphone(1)
8	SKUUZ200-SE	Bottom Board Ass'y(W/Feet) (1)
8-1	SKL293	Foot (4)
9(EGA)	SGP6250B	Rear Panel (1)
9(EK)	SGP6250C	Rear Panel (1)
9(XA, PC)	SGP6250-1A	Rear Panel (1)
9(XL)	SGP6250-2A	Rear Panel (1)
9(E)	SGP6250A	Rear Panel (1)
9(Other)	SGPUZ100-SE	Rear Panel Ass'y (1)
10	SUB199	Connection Rod, Selector (4)
11	SBC662C	Button, phono (1)
12	SBC662F	Button, Tuner (1)
13	SBC662G	Button, AUX (1)
14	SBC662H	Button, Tape (1)
15	SBDUZ600-KM	Knob Ass'y, Volume (1)
16	SBC571-4T	Knob, Loudness (1)
17	SJF4433	Terminal, Speaker (1)
18	SJF3059-1N	Terminal, IN/OUT (1)
19	$\text{\textcircled{O}}$ SKC1550S2	Cabinet (1)
19	$\text{\textcircled{K}}$ SKC1550BB2	Cabinet (1)
20(XL, XA, PC) only	SMN1923	Plate, Fuse (1)
21	SJT347	Holder, Fuse (2)
22(EK)	Δ SFDAC05G02	AC Cord (1)
22(XA, PC)	Δ SJA168	AC Cord (1)
22(XL)	Δ SJAG23	AC Cord (1)
22(other)	Δ SJA171	AC Cord (1)

Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
23(XL)only	SHR127	Bushing, AC Cord (1)
24	SJT783	Terminal (3)
25	SJS5331	Socket, 3p (1)
26	SJT3319	Post, 3p (1)
27	SJS5519	Socket, 5p (2)
27	SJS5709	Socket, 7p (1)
28(XA, PC)	SJS9328A	Cover (1)
29(XA, PC)	SJS9328B	Inlet (1)
30 Except (XL)	SJS9231A	Cover (1)
31 Except (XL)	SJS9231B	Inlet (1)
32	SHR401-1	Crip (1)
SCREWS and WASHERS		
N1	$\text{\textcircled{S}}$ XTB3+8BFZ	Tapping, $\oplus 3 \times 8$ (3)
N2	$\text{\textcircled{S}}$ XTB3+8BFZ	Tapping, $\oplus 3 \times 8$ (1)
N3	$\text{\textcircled{S}}$ XTB3+8BFN	Tapping, $\oplus 3 \times 8$ (2)
N4	$\text{\textcircled{S}}$ XTB3+8BFN	Tapping, $\oplus 3 \times 8$ (4)
N5	$\text{\textcircled{S}}$ XTB3+8BFZ	Tapping, $\oplus 3 \times 8$ (3)
N6	$\text{\textcircled{S}}$ XTV3+8BFN	Tapping, $\oplus 3 \times 8$ (1)
N7	$\text{\textcircled{S}}$ XWG3	$\phi 3$ (1)
N8	$\text{\textcircled{S}}$ XTB3+8BFYR	Tapping, $\oplus 3 \times 8$ (4)
N9	$\text{\textcircled{S}}$ XTB3+8BFZ	Tapping, $\oplus 3 \times 8$ (5)
N10	$\text{\textcircled{O}}$ SNE2095-4	Cabinet (2)
N10	$\text{\textcircled{K}}$ SNE2095-5	Cabinet (2)
N11(XA, PC)	XSN3+6FZS	$\oplus 3 \times 6$ (2)
N12(XA, PC)	XWA3BFZ	$\phi 3$ (2)
N13	$\text{\textcircled{S}}$ XTB3+14BFN	Tapping, $\oplus 3 \times 14$ (2)
ACCESSORIES		
A1(EK)	SQF12144	Instruction Book (1)
A1(EF)	SQF12145	Instruction Book (1)
A1(EI)	SQF12146	Instruction Book (1)
A1(XA, PC)	SQF12147	Instruction Book (1)
A1(EGA)	SQF12149	Instruction Book (1)
A1(other)	SQF12143	Instruction Book (1)
A2(XA, PC)only	SJP9215	Plug, AC (1)
PACKING PARTS		
P1(EK)	$\text{\textcircled{O}}$ SPG4950	Carton Box (1)
P1(other)	$\text{\textcircled{O}}$ SPG4949	Carton Box (1)
P1(EK)	$\text{\textcircled{K}}$ SPG4953	Carton Box (1)
P1(other)	$\text{\textcircled{K}}$ SPG4952	Carton Box (1)
P1(EF)	$\text{\textcircled{K}}$ SPG4951	Carton Box (1)
P2	SPS3987	Pad, Upper (1)
P3	SPS4089-1	Pad, Right (1)
P4	SPS4091-1	Pad, left (1)
P5	SPP735	Polyethylene Bag (1)

Areas

[E] Switzerland and Scandinavia	[Ei] Italy
[EGA] . . F.R. Germany	[XL] Australia
[EK] United Kingdom	[XA] Asia, Latin America, Africa, Middle Near East and Oceania
[EF] France	[PC] European Audio Club
[EH] Holland	
[EB] Belgium	

EXPLODED VIEW



A	21	19	20	31	29	23	30	22	28	9	27	24	25	26
B	6	7	32	17	32	8-1	8	8-1	18					
C	4	5	3	1	16	15	14	10	13	12	2	11	10	